

CLAIMS

What is claimed is:

1. A repair device for a flexible drive coupling having a shell and a hub, the repair device comprising:

a first member fixed to the shell, the first member including a slot; and

a second member fixed to the hub, a portion of said second member extending from the hub, said portion being slidably positioned within said slot, said first member being drivingly engageable with said second member to transfer torque between the shell and the hub while allowing the hub and shell to move relative to one another.

2. The repair device of claim 1 wherein the shell is rotatable about a first axis and the hub is rotatable about a second axis misaligned with said first axis, said first member being rotatable about said first axis, said second member being rotatable about said second axis.

3. The repair device of claim 2 wherein said first member includes a bifurcated end in receipt of said portion of said second member.

4. The repair device of claim 1 wherein said first member includes an arcuate inner wall engaging an outer surface of the shell.

5. The repair device of claim 4 wherein said first member includes an arcuate outer wall extending substantially parallel to said arcuate inner wall.

6. The repair device of claim 5 wherein said arcuate inner wall and said arcuate outer wall extend for an arc lengths substantially less than forty-five degrees.

7. The repair device of claim 1 further including third, fourth, fifth and sixth members, said third and fifth members being substantially similar to said first member and being circumferentially spaced apart from one another and fixed to the shell, said fourth and sixth members being substantially similar to said second member and being circumferentially spaced apart from one another and fixed to the hub, said third member slidably engaging a slot of said fourth member and said fifth member slidably engaging a slot of said sixth member.

8. The repair device of claim 2 wherein said slot of said first member extends in a direction substantially parallel to said first axis.

9. The repair device of claim 8 wherein said second member extends in a direction substantially perpendicular to said second axis.

10. The repair device of claim 9 wherein said slot is formed in a bifurcated end of said first member.

11. The repair device of claim 1 wherein said first member includes a first leg engaging an outer cylindrical surface of the shell.

12. The repair device of claim 11 wherein said first member includes a second leg extending orthogonally from said first leg, said second leg including said slot.

13. A method for repairing a flexible drive coupling having a shell and hub, the shell being coupled to a first shaft and rotatable about a first axis, the hub being coupled to a second shaft and rotatable about a second axis misaligned from the first axis, the method comprising:

mounting a first member to the shell, said first member including a slot;
slidably positioning a portion of a second member within said slot; and
mounting said second member to the hub, wherein rotation of the shell drivably engages the first and second members to cause the hub to rotate.

14. The method of claim 13 further including extending a first end of said first member from the shell.

15. The method of claim 14 further including extending said portion of said second member from the hub, wherein said portion is moveable within said slot while torque is being transferred between said first and second members.

16. The method of claim 15 wherein said first end of said first member is bifurcated.

17. The method of claim 16 further including welding a second end of said first member to the shell.

18. The method of claim 17 further including welding said second member to the hub.

19. The method of claim 13 further including mounting a third member to the shell, said third member including a slot;

slidably positioning a portion of a fourth member in said slot of said third member; and

mounting said fourth member to the hub.

20. The method of claim 19 wherein said first and third members are circumferentially spaced apart from one another.

21. The method of claim 13 further including engaging an inner arcuate surface of said first member with an outer surface of the shell.

22. The method of claim 21 further including engaging said first member with an end face of the shell.

23. A method of repairing a flexible drive coupling having a shell and a hub, the shell being rotatable about a first axis and the hub being rotatable about a second axis not aligned with the first axis, the method comprising:

mounting a first member to the shell;

mounting a second member to the hub; and

drivingly interconnecting said first and second members to provide a torque transfer path between the shell and the hub.

24. The method of claim 23 further including engaging a portion of said second member with said first member.

25. The method of claim 24 further including slidably positioning said portion of said second member within a slot formed in said first member.

26. The method of claim 26 further including positioning said slot to extend in a direction substantially parallel to the first axis.

27. The method of claim 27 further including positioning said second member to extend in a direction substantially perpendicular to the second axis.